



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/583,489

06/15/2006

Mustafa Demirbaker

GTH-0003

3696

23413 7590 12/02/2009  
CANTOR COLBURN, LLP  
20 Church Street  
22nd Floor  
Hartford, CT 06103

EXAMINER

BUSHEY, CHARLES S

ART UNIT

PAPER NUMBER

1797

NOTIFICATION DATE

DELIVERY MODE

12/02/2009

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

usptopatentmail@cantorcolburn.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/583,489	<b>Applicant(s)</b> DEMIRBUKER, MUSTAFA	
	<b>Examiner</b> Scott Bushey	<b>Art Unit</b> 1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 21 September 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-18,22-31,33-36 and 38 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4,6-8,10,16,18,22-31,33-36 and 38 is/are rejected.
- 7) ☒ Claim(s) 5,9,11-15 and 17 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                    | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 36 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 36 recites an intended use of the device without further limiting the structure of the apparatus. Notwithstanding the amendments made to the claim by applicant in the response filed September 21, 2009, the claim still only recites an intended use of an apparatus, which cannot be considered to further limit an apparatus or patentably define an apparatus claim over the prior art.

### ***Claim Rejections - 35 USC § 101***

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claim 36 provides for the use of a device or process, but, since the claims do not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

Claim 36 is rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper

Art Unit: 1797

definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd. v. Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-3, 6-8, 10, 16, 18, 22, 23, 26-31, and 38 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by DeBoer, Jr. et al (Fig. 2; col. 1, line 54 through col. 2, line 14).

Applicant should note that the reference teaches a device and process of operating the device to form small particles of a substance, the device including a first inlet (2) for a liquid, a second inlet (3) for an atomizing fluid, a mixing zone formed by an adjustable interspace, the walls of which are movable relative to one another to adjust the volume of the interspace, one of the walls of the interspace being biased to move by means (12). Applicant should also note that the second inlet (3) is connected to the mixing means by second conduit chamber (4), while the first inlet means is connected to mixing means by first conduit means (8).

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 1797

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 4, 24, 25, and 33-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over DeBoer, Jr. et al.

DeBoer, Jr. et al (Fig. 2; col. 1, line 54 through col. 2, line 14) as applied above, substantially disclose applicant's invention as recited by instant claims 4, 24, 25, and 33-36, except for the biasing means being in the form of a spring, as recited by instant claim 4, the atomizing agent of the method of claims 24 and 25 being either in the form of a liquid jet or a medium at supercritical state, or the particles formed being of 0.05-10 microns in size and useable as a pharmaceutical substance.

With regard to the biasing means, it would have been obvious for an artisan at the time of the invention, to substitute a spring for the screw thread adjustment means, since as is well known within the art, a spring offers the added well known advantage of allowing the mixing area and outlet to temporarily enlarge to overcome an overpressurization due to clogging of the outlet. Whereas the chosen atomization agent, the particle size and the material of the particle would be dictated by the end use of the product desired, it would have been obvious for an artisan at the time of the invention, to choose any well known atomizing agent, including those as recited by instant claims 24 and 25, and to produce a particle of specific size and material makeup, as recited by instant claims 33-36.

***Allowable Subject Matter***

9. Claims 5, 9, 11-15, and 17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Response to Arguments***

10. Applicant's arguments filed September 21, 2009 have been fully considered but they are not persuasive. With regard to the rejections of claim 36 under 35 USC 112 and 35 USC 101, applicant has simply stated that the claim has been amended, but has failed to set forth any arguments relative thereto. With regard to the amendments to claim 36, an additional statement has been provided in the rejection statement of paragraph 2 above. With regard to the prior art rejections of the instant claims, applicant's only discernible argument is that the mist formed by the applied prior art rejection "is not a particle" and therefore the prior art is from an area divergent from the claimed invention, i.e., an apparatus or method for the formation of small particles. Such is not at all persuasive, since the dictionary definition of a particle is "a body with very small size". The definition does not mention the phase of the body as being a defining characteristic thereof. If one looks further into the semantics of the term, it will become clear that the related term "particulate" is defined as "any solid or liquid in a subdivided state, comprised of particles; as, particulate matter." Clearly, wherein applicant's claims are directed to a means or method of creating small particles from "a solution", such does not limit the claimed invention to a substance unlike a mist, as disclosed by the applied prior art.

Art Unit: 1797

11. Applicant's arguments with respect to claim 38 have been considered but are moot in view of the new ground of rejection.

***Conclusion***

12. Applicant's amendment necessitated the new ground of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott Bushey whose telephone number is 571 272-1153. The examiner can normally be reached on M-Th 6:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on 571 272-1166. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1797

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Scott Bushey  
Primary Examiner  
Art Unit 1797

/S. B./  
11-23-09

/Scott Bushey/  
Primary Examiner, Art Unit 1797